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- b) expressing said receptor or portion thereof under conditions permitting specific binding of said compound to said receptor or portion thereof;
  - c) exposing said cell to a sample suspected of comprising said compound; and
  - d) detecting the presence of any compound specifically bound to said receptor or portion thereof,

thereby determining whether said compound specifically binds to said receptor or portion thereof.

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40. The method according to claim 39, further comprising the steps of preparing a cell extract from the cell transfected with said nucleic acid molecule, isolating a membrane fraction of said cell extract, and contacting said sample with said membrane fraction under conditions permitting binding of the compound to said fraction.

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41. The method according to claim 39, wherein said detecting is performed by monitoring a change in the signaling activity of said CCR5 chemokine receptor or portion thereof.

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42. The method according to claim 39, wherein said detecting is performed by monitoring the acidification rate of said host cell.

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43. The method according to claim 41, wherein said detecting is performed by monitoring the level of intracellular calcium in said host cell.

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44. The method according to claim 41, wherein said detecting is performed by monitoring the stimulation of an intracellular cascade.

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45. The method according to claim 41, wherein said detecting is performed by monitoring the level of inositol triphosphate.

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46. The method according to claim 39, wherein said compound is an agonist of CCR5.

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47. The method according to claim 39, wherein said compound is an antagonist of CCR5.

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48. The method according to claim 39, wherein said at least one ligand is selected from the group consisting of RANTES, MIP-1 $\alpha$ , and MIP-1 $\beta$ .

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49. The method according to claim 39, wherein said cell is selected from the group consisting of CHO-K1, HEK293, BHK21, and COS-7.

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50. The method according to claim 39, wherein said cell is exposed to said sample suspected of comprising said compound, in the presence of a ligand for the CCR5 receptor.

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